



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,552	01/17/2006	Luigi D'Elia	279164US0XPCT	3871

22850 7590 08/10/2009
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

GRAHAM, CHANTEL LORAN

ART UNIT	PAPER NUMBER
----------	--------------

1797

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

08/10/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/551,552	Applicant(s) D'ELIA ET AL.	
	Examiner CHANTEL FERGUSON- GRAHAM	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/21/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed July 21, 2009 has been entered and fully considered.
2. The rejection under 35 U.S.C. 103(a) made in the previous office action is withdrawn in view of applicants' arguments.
3. Claims 1 and 3-19 are pending and have been fully considered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1 and 3-19 are rejected under 35 USC 103 (a) as being obvious over WESTFALL ET AL. (US PG PUB 20020116868), in combination with KRULL ET AL (US PATENT 6364918).

Hereby referred to as WESTFALL and KRULL.

WESTFALL discloses an aqueous hydrocarbon fuel emulsion (water-in-oil-type) comprised of water, liquid hydrocarbon fuel (including diesel fuel), and an emulsifier; and a process for making the aqueous hydrocarbon fuel emulsion in a batch or a continuous

process. The emulsifier component may be present in the fuel emulsion in an amount of 0.1% to about 25% by weight and comprises:

- (i) at least one hydrocarbyl-substituted carboxylic acid acylating agent reacted with ammonia or an amine;
- (ii) at least one ionic or nonionic compound having a (HLB) between 1-40;
- (iii) a mixture of (i) and (ii); (iv) a water soluble compound selected from amine salts, ammonium salts, etc.,
- (v) the reaction product of a polyacidic polymer with at least one fuel soluble product made by reacting at least one hydrocarbyl-substituted carboxylic acid acylating agent with ammonia, an amine, a polyamine, alkanol amine, or hydroxy amines;
- (vi) an amino alkylphenol; and
- (vii) the combination of (vi) with (i), (ii), (iii), (iv), (v) or combinations thereof.

See page 1, paragraphs [0009] to [0018]. The examiner is of the position that the emulsifier components of WESTFALL meet the limitations of the emulsifiers set forth in dependent claims 12-16.

The claims differ from WESTFALL by adding an anti-cavitation additive to the fuel emulsion comprising a specific copolymer that has an average molecular weight (Mw) ranging from 700 to 3000. However, such copolymers are known in the art as fuel additives as evidenced by KRULL.

KRULL discloses middle distillate fuel oils (including diesel fuels) containing oil soluble copolymers comprising structural units of (A) from 5 to 95 mol % of an olefinically unsaturated carboxylic acid or derivative of such an acid, (B) from 5 to 95 mol % of an olefinically unsaturated compound, and (C) from 0 to 40 mol % of structural units selected

Art Unit: 1797

from (meth) acrylates, vinyl esters and olefins. The copolymers act to improve the lubricity of middle distillate fuel and are added to the fuel in an amount of about 0.001 to 2% by weight (column 6, lines 12-28). The copolymers have a mean molecular weight Mw of from 700 to 10,000 g/mol. Derivatives of the acid monomer (A) include their anhydrides and esters with alcohols having 1-5 carbon atoms. See column 2, line 43 to column 3, line 27. KRULL teaches that the copolymers are further reacted with a reagent which has at least one -OH group and a further functional group which is capable of reacting with the carboxylic acid or derivative thereof unit (A). KRULL teaches that the binding to the polymer can take place via hydroxyl groups as ester and/or via primary or secondary amino groups in the form of amides, imides and/or ammonium salts. See column 5, lines 35-40. Thus the examiner is of the position that this meets the limitations of the copolymer of claims 1 and 3-8.

Having the prior art references before the inventors at the time the invention was made it would have been obvious to have added the copolymer of KRULL to the fuel water emulsion composition of WESTFALL if its known imparted property was so desired. WESTFALL provides motivation for the addition of other well known fuel additives to the water-fuel emulsions in paragraphs [0081] and [0163]. Although the property of anti-cavitation is not disclosed in KRULL, fuel additives generally impart more than one property or function to the fuel. It has been held that obviousness is not rebutted by merely recognizing additional advantages or latent properties present in the prior art additive. Further, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the

differences would otherwise be obvious. *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd.Pat. App. & Inter. 1985).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANTEL FERGUSON-GRAHAM whose telephone number is (571)270-5563. The examiner can normally be reached on M-Th 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/
Primary Examiner, Art Unit 1797

Chantel Ferguson-Graham
Chemical Examiner
Art Unit 1797